

# **Gahanna Division of Police**

Jeffrey B. Spence, Chief of Police



## **Field Services Subdivision**

### **Traffic Survey**

**Dark Star Avenue 03-30-21 to 04-15-21**

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460 Rocky Fork Blvd.

Gahanna, Ohio 43230

614-342-4240

[WWW.GAHANNA.GOV](http://WWW.GAHANNA.GOV)

**Survey Device:** Speed Monitoring and Notification Device (SMND) # 1129

**Survey Operator:** Lt. Ethan Moffitt # L-58

**Device Location:** Dark Star Avenue, just northeast of Tim Tam Avenue

**Device Direction:** Facing eastbound traffic (coming from US RT 62/E. Johnstown Road)

**Speed Limit:** 25 MPH

**Survey Dates:** 03-30-21 to 4-15-21

**Survey Reason:** Self-initiated deployment and equipment test

### **Summary –**

On 04-16-21, SMND # 1129 was deployed on Dark Star Avenue, a location associated with previous community reports of excessive speed. The device was deployed in order to provide a continuous speed mitigation presence and test the SMND's survey equipment.

The SMND successfully recorded the speed of 50,157 vehicles (combined eastbound and westbound traffic). Of those, 16,101 or 32%, were traveling in excessive of the posted speed limit and 34,056, or 67.9%, were traveling below the speed limit. The average speed was 22 MPH. The 85th percentile speed was 28 MPH, meaning that 85% of the vehicles were traveling at a speed of 28 MPH or less.

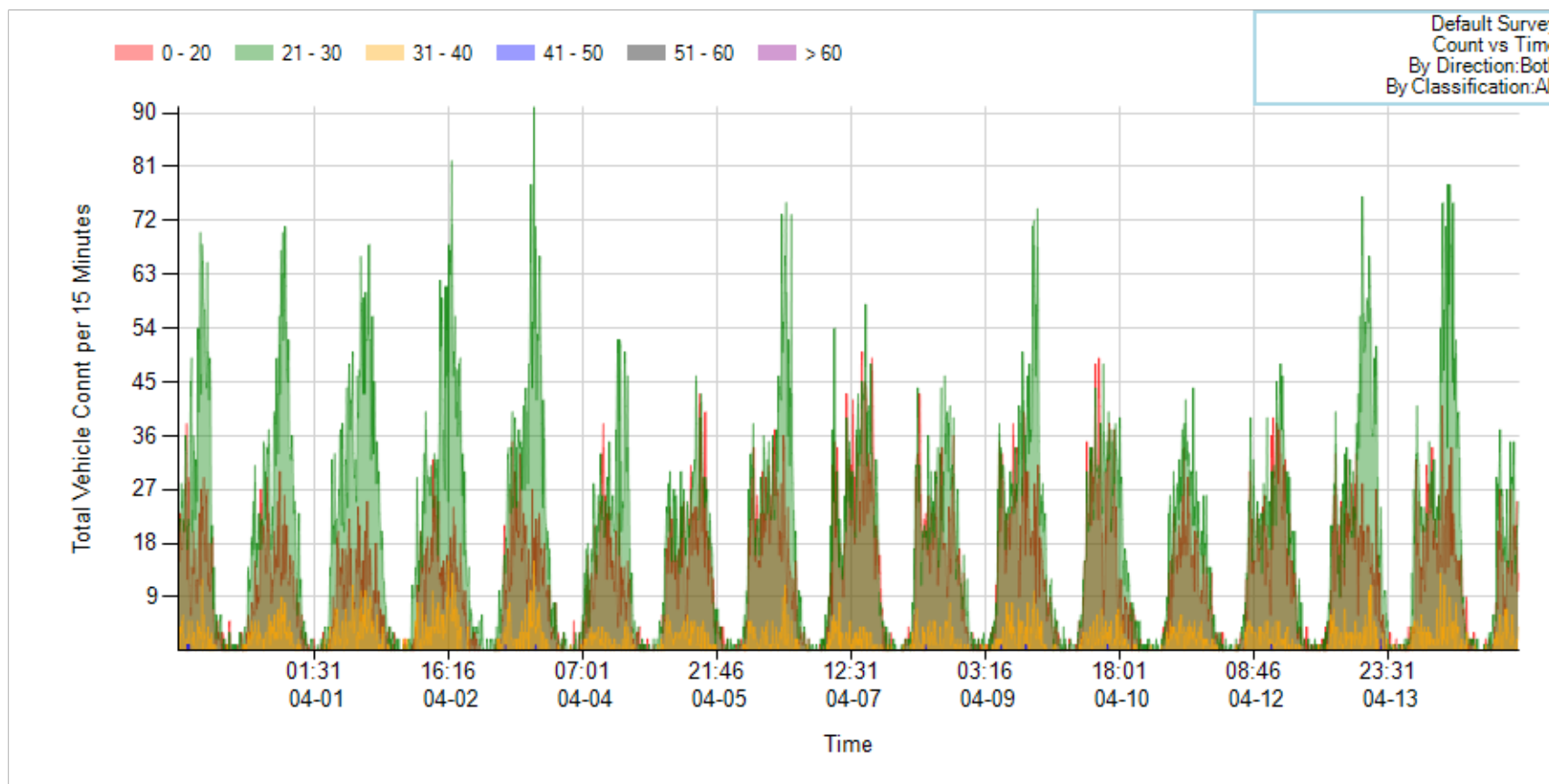
Two hundred and sixty-two vehicles were traveling in excess of 35 MPH, accounting for less than 1% of the total count (50,157) and less than 2% of the over-limit count (16,101). Conversely, more than 99% of vehicles traveling above the speed limit were going between 26 and 35 MPH.

The survey results demonstrate that the presence of the SMND was an effective mitigation measure. There was substantial compliance with the posted speed limit during the deployment period and few excessive speed violations.

# Gahanna Division of Police Dark Star Avenue April 2021 Speed Survey



Count vs. Time by Speed

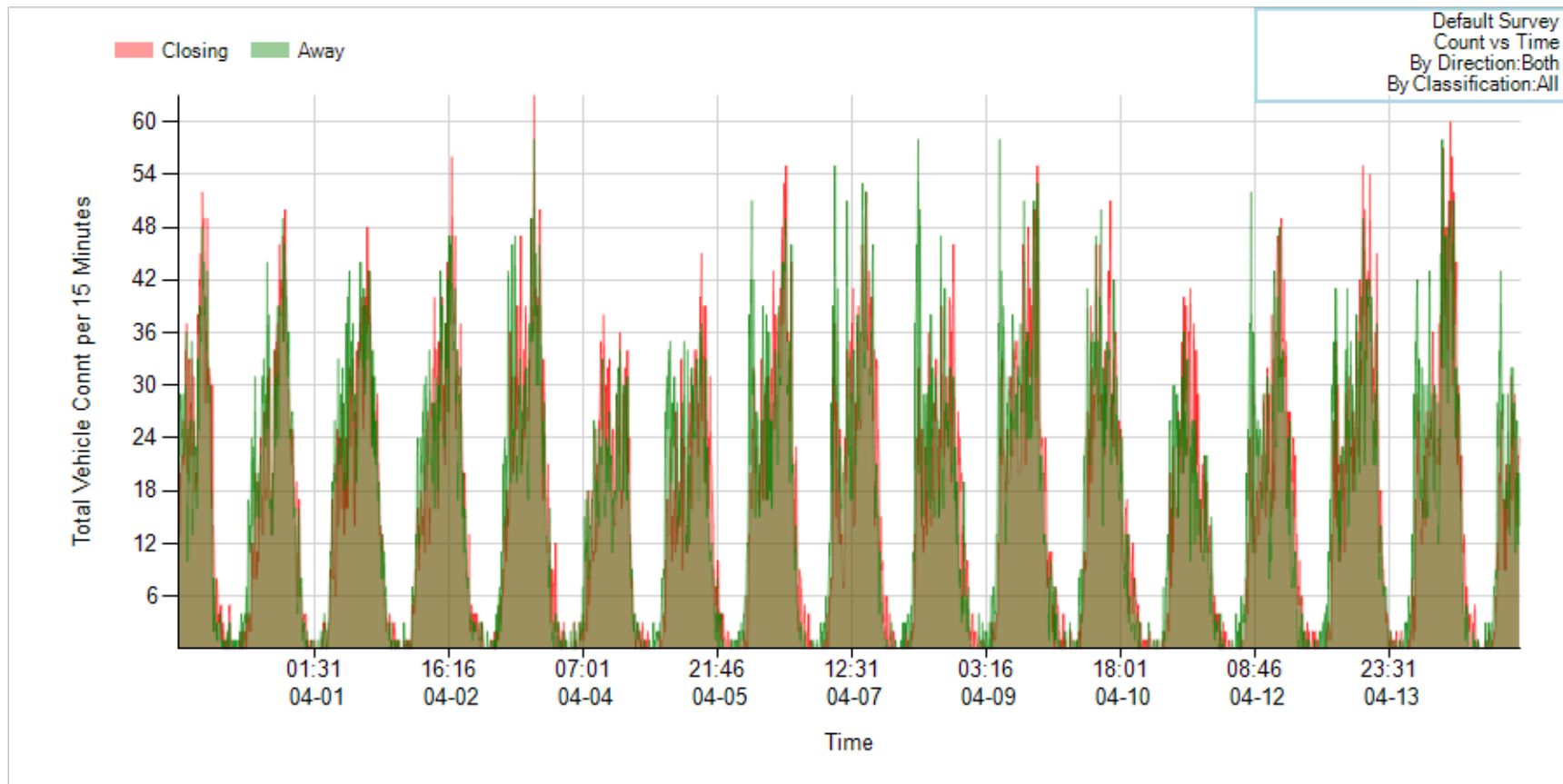


Survey Name	Default Survey	Speed Unit	Miles/Hour	Average Speed	22.2	MPH	Total Volume	50157	100%
Start Date	2021-03-30	Speed Limit	25	Max Speed	49	MPH	Over Limit Count	16101	32.1%
Stop Date	2021-04-15			Min Speed	10	MPH	Under Limit Count	34056	67.9%
				85th Percentile	28	MPH	Over Threshold Count	262	0%
				10 MPH Pace	18 - 27	MPH	In Pace Count	27299	54.4%

# Gahanna Division of Police Dark Star Avenue April 2021 Speed Survey



Count vs. Time by Direction

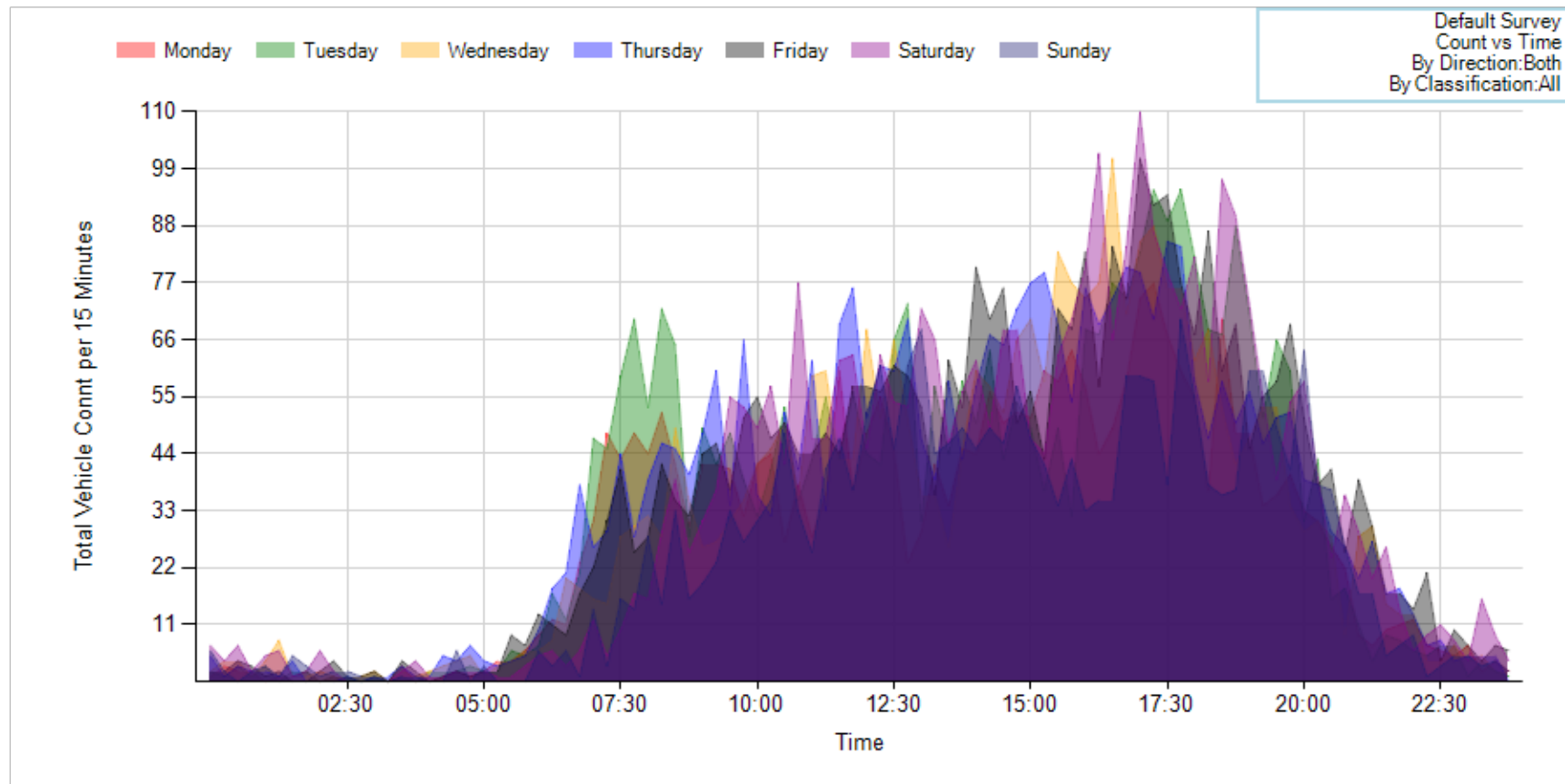


Survey Name	Default Survey	Speed Unit	Miles/Hour	Average Speed	22.2	MPH	Total Volume	50195	100%
Start Date	2021-03-30	Speed Limit	25	Max Speed	49	MPH	Over Limit Count	16106	32.1%
Stop Date	2021-04-15			Min Speed	10	MPH	Under Limit Count	34089	67.9%
				85th Percentile	28	MPH	Over Threshold Count	262	0%
				10 MPH Pace	18 - 27	MPH	In Pace Count	27325	54.4%

# Gahanna Division of Police Dark Star Avenue April 2021 Speed Survey



Weekly Count vs. Time



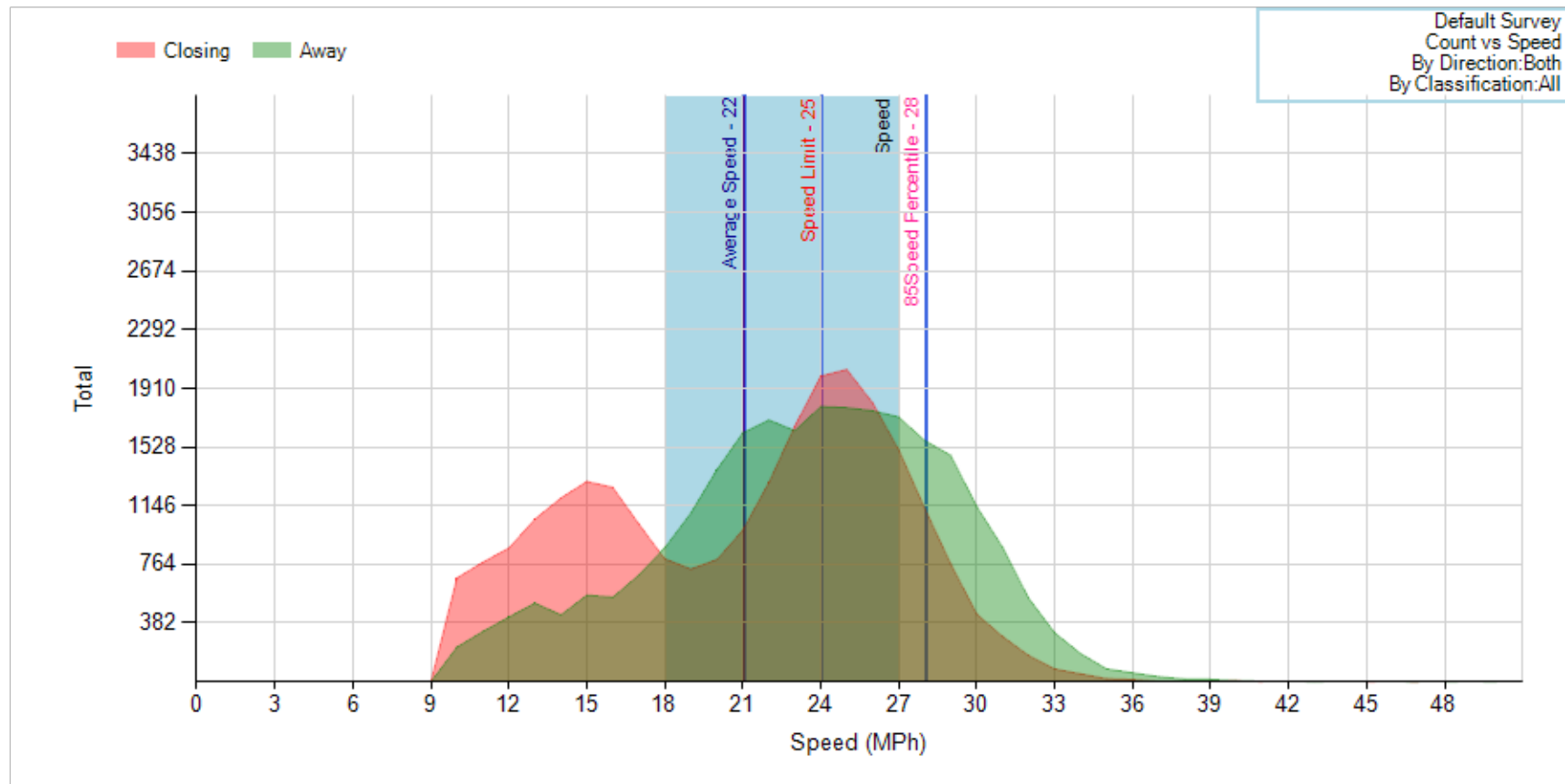
Survey Name	Default Survey	Speed Unit	Miles/Hour	Average Speed	22.2	MPH	Total Volume	50195	100%
Start Date	2021-03-30	Speed Limit	25	Max Speed	49	MPH	Over Limit Count	16106	32.1%
Stop Date	2021-04-15			Min Speed	10	MPH	Under Limit Count	34089	67.9%
				85th Percentile	28	MPH	Over Threshold Count	262	0%
				10 MPH Pace	18 - 27	MPH	In Pace Count	27325	54.4%



# Gahanna Division of Police Dark Star Avenue April 2021 Speed Survey



Count vs. Speed

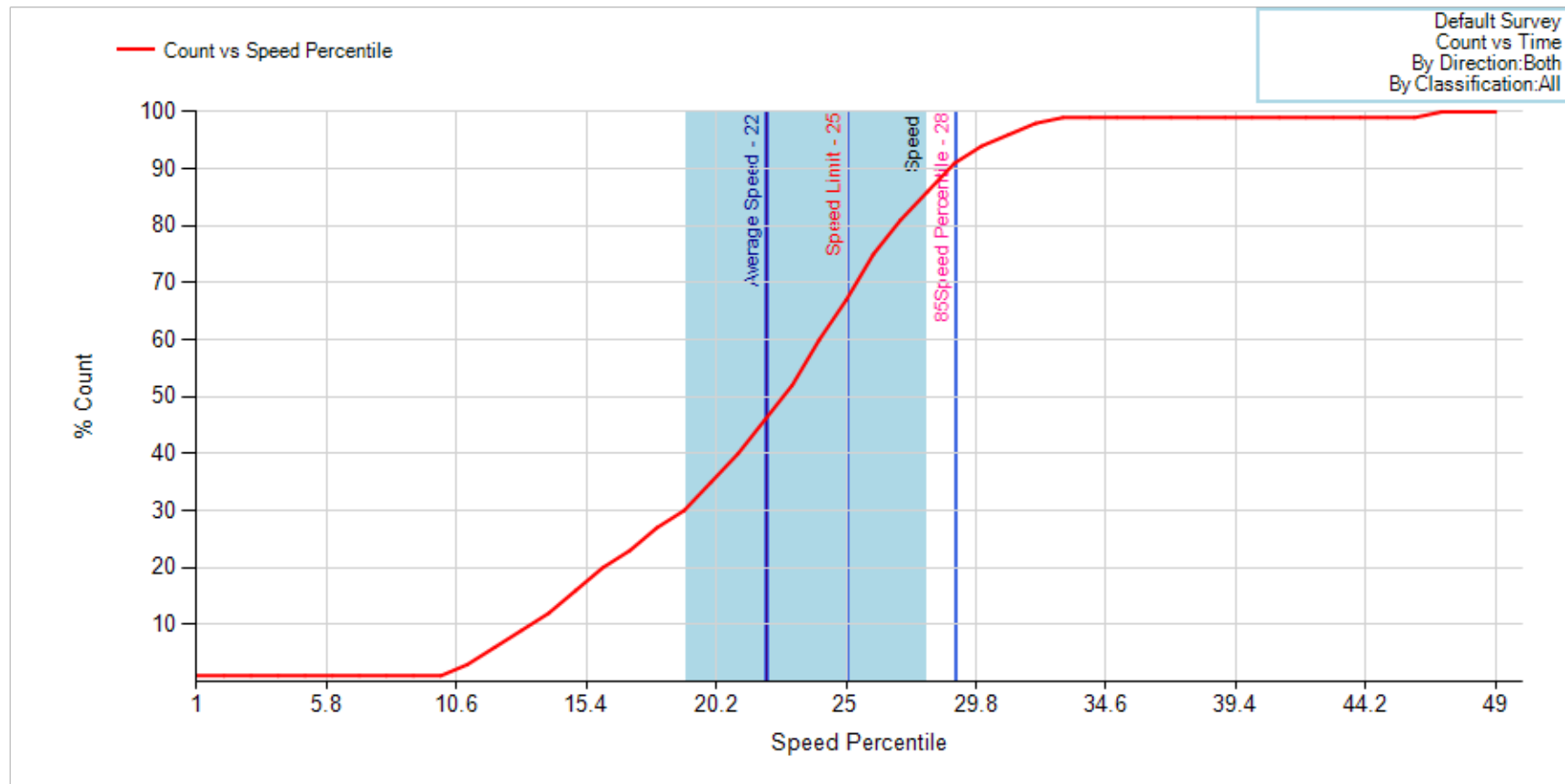


Survey Name	Default Survey	Speed Unit	Miles/Hour	Average Speed	22.2	MPH	Total Volume	50195	100%
Start Date	2021-03-30	Speed Limit	25	Max Speed	49	MPH	Over Limit Count	16106	32.1%
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# Gahanna Division of Police Dark Star Avenue April 2021 Speed Survey



Percentile Chart

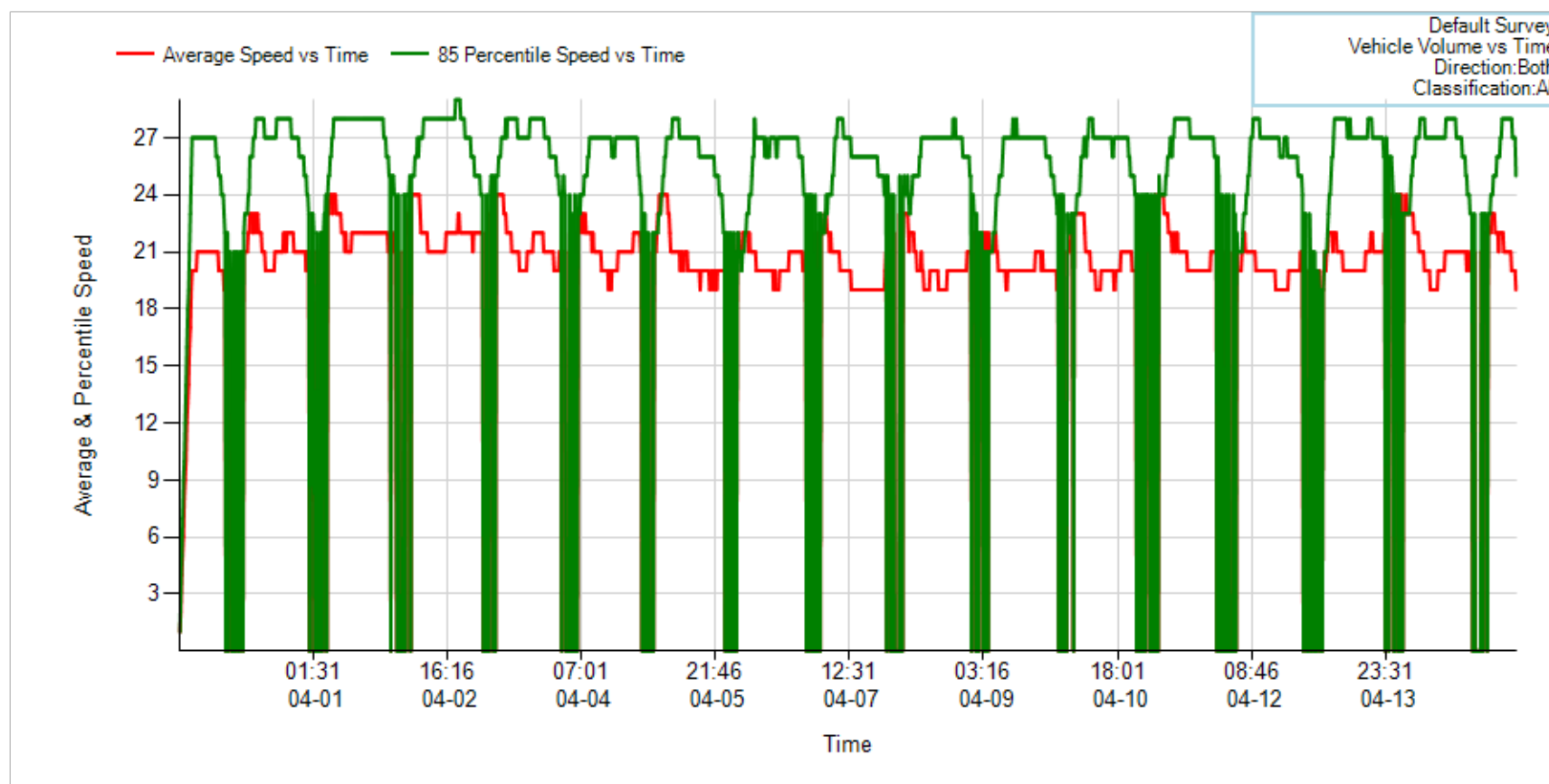


Survey Name	Default Survey	Speed Unit	Miles/Hour	Average Speed	22.2	MPH	Total Volume	50195	100%
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# Gahanna Division of Police Dark Star Avenue April 2021 Speed Survey



Average Speed vs. Time



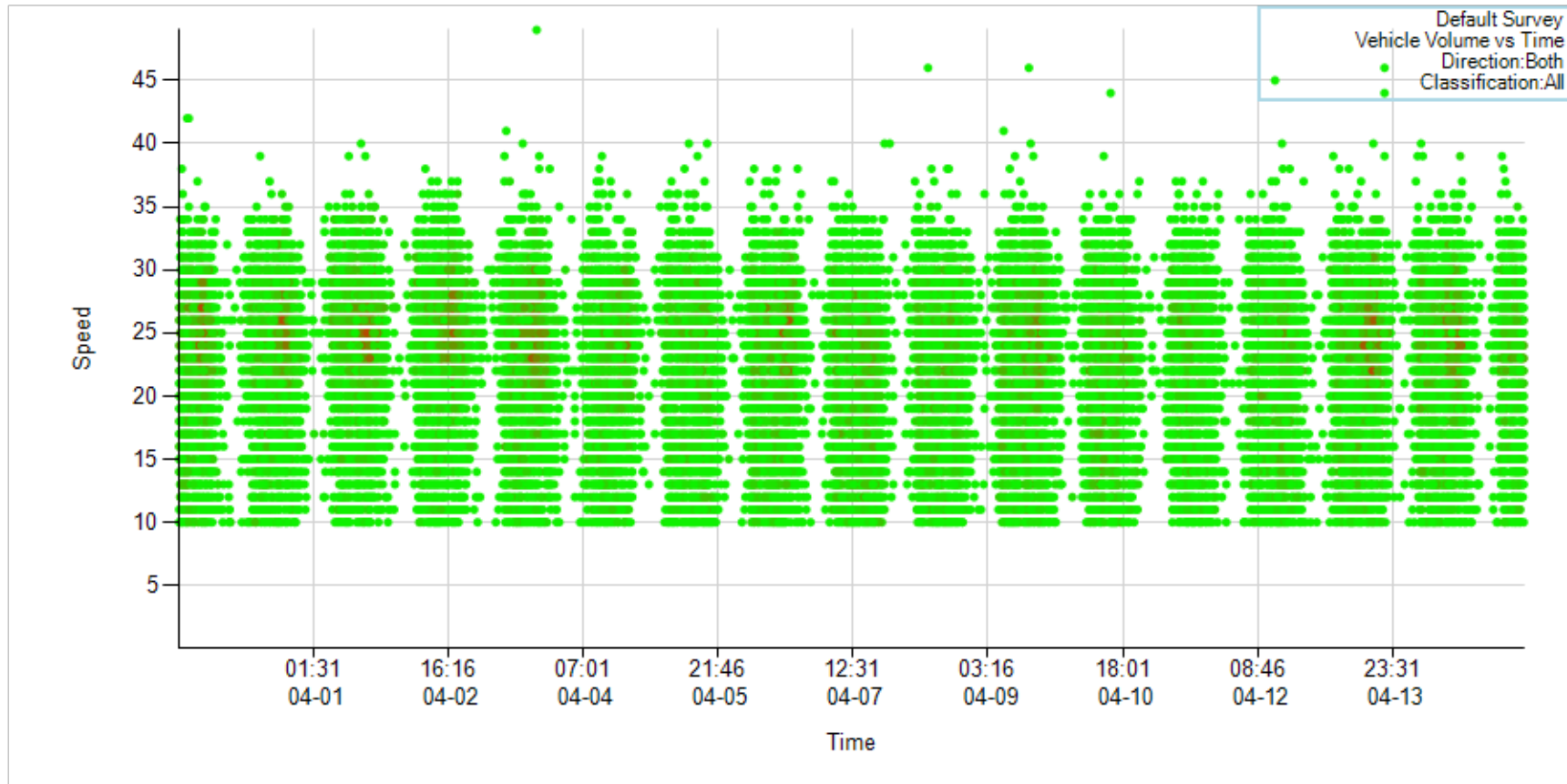
Survey Name	Default Survey	Speed Unit	Miles/Hour	Average Speed	22.2	MPH	Total Volume	50195	100%
Start Date	2021-03-30	Speed Limit	25	Max Speed	49	MPH	Over Limit Count	16106	32.1%
Stop Date	2021-04-15			Min Speed	10	MPH	Under Limit Count	34089	67.9%
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# Gahanna Division of Police Dark Star Avenue April 2021 Speed Survey



Speed vs. Time Bubble Chart



Survey Name	Default Survey	Speed Unit	Miles/Hour	Average Speed	22.2	MPH	Total Volume	50195	100%
Start Date	2021-03-30	Speed Limit	25	Max Speed	49	MPH	Over Limit Count	16106	32.1%
Stop Date	2021-04-15			Min Speed	10	MPH	Under Limit Count	34089	67.9%
				85th Percentile	28	MPH	Over Threshold Count	262	0%
				10 MPH Pace	18 - 27	MPH	In Pace Count	27325	54.4%

Survey Name	Default Survey	Location	637 Dark Star Avenue,Gahan...	Speed Unit	Miles/Hour
Start	2021-03-30 10:46	Traffic Direction	Undefined	Speed Limit	25
Stop	2021-04-15 13:29	Zone	Normal	Min Speed Threshold	10
Operator	000	Min Following Time	0.0	Max Speed Threshold	120
Survey Direction	Both	Time Resolution	1	Speed Resolution	1

Total Vehicle Connt	50195	100%	Average Speed	22.2	MPH	In Pace Count	27325	54%
Under Limit Count	34089	67%	Minimum Speed	10	MPH	10 mph Pace	18 - 27	MPH
Over Limit Count	16106	33%	Maximum Speed	49	MPH	Standard Deviation	5	MPH
10 Over Limit Count	262	0%	85Speed Percentile	28	MPH	Average Speed Over Limit	28.4	MPH



## Survey Report Quick Guide/Reference

### Over Threshold Count

The default threshold (amount over the posted speed limit) is 10 MPH. The **Over Threshold Count** is the number of vehicles traveling in excess of the selected threshold. For example, if the threshold is set at the 10 MPH default, this would indicate the number of vehicles (within the Total Volume) that were traveling at 10 MPH over the posted limited.

### Count vs. Time

The **Count vs Time Chart** shows the number of vehicles per unit of time traveling on the monitored roadway.

### Weekly Count vs. Time Chart

The **Weekly Count vs. Time Chart** mode shows the vehicle count per day over a 7-day period. If the survey period extends beyond one 7- day week, the values of each overlapped week day will be the average values for those overlapped week days.

### Count vs. Speed Chart

The **Count vs. Speed Chart** selection shows the total vehicle count for each speed group. The size of the speed group can be set by the operator (**Speed Resolution** selection in the **Analysis Control**).

### Percentile Chart

The **Percentile Chart** shows the cumulative percentage of vehicles that are at or below a given speed

### Average Speed vs. Time Chart

The **Average Speed vs. Time Chart** shows the average and the 85<sup>th</sup> Percentile Speeds of the vehicles over time.

### Speed vs. Time Bubble Chart

The **Speed vs. Time Bubble Chart** plots both vehicle speed and volume against time. The size of the bubble represents the number of cars at a particular speed group at a particular time. This chart is useful in showing traffic bunching.

### Average Speed

The average speed of all vehicles

### 85Speed Percentile

The speed at which 85% of the traffic was traveling **at or less than**. The 85<sup>th</sup> percentile is considered to be a key metric because it is generally considered to representative of prevailing traffic conditions (the speed vehicles on the roadway are going most of the time).